



Pioneer Energy Services

Microresistivity Log

15-035-24,594-00-00

API No.

Company **W.D. Short Oil Company, LLC**

Well **Brown #13**

Field **Albright**

County **Cowley** State

Kansas

Location **2,037' FSL & 1,970' FEL**

Other Services
CNL/CDL
DIL/BHCS

Sec: **2** Twp: **34S** Rge: **5E**

Permanent Datum **Ground Level** Elevation **1270**

Log Measured From **Kelly Bushing** **8** Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

Date **8/23/2014**

Run Number **Two**

Depth Driller **3503**

Depth Logger **3497**

Bottom Logged Interval **3496**

Top Log Interval **2300**

Casing Driller **8.625 @ 210**

Casing Logger **210**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity, ppm CL **1500**

Density / Viscosity **9.1 37**

pH / Fluid Loss **8.0 8.2**

Source of Sample **Flowline**

Rm @ Meas. Temp **1.60 @ 78**

Rmf @ Meas. Temp **1.20 @ 78**

Rmc @ Meas. Temp **2.16 @ 78**

Source of Rmf / Rmc **Charts**

Rm @ BHT **1.12 @ 111**

Operating Rig Time **4 Hours**

Max Rec. Temp. F **111**

Equipment Number **108**

Location **Hays**

Recorded By **J. Long**

Witnessed By **Dan Johnson**

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

Comments

Thank you for using Pioneer Energy Services
www.pioneerenergy.com
785 625 3858

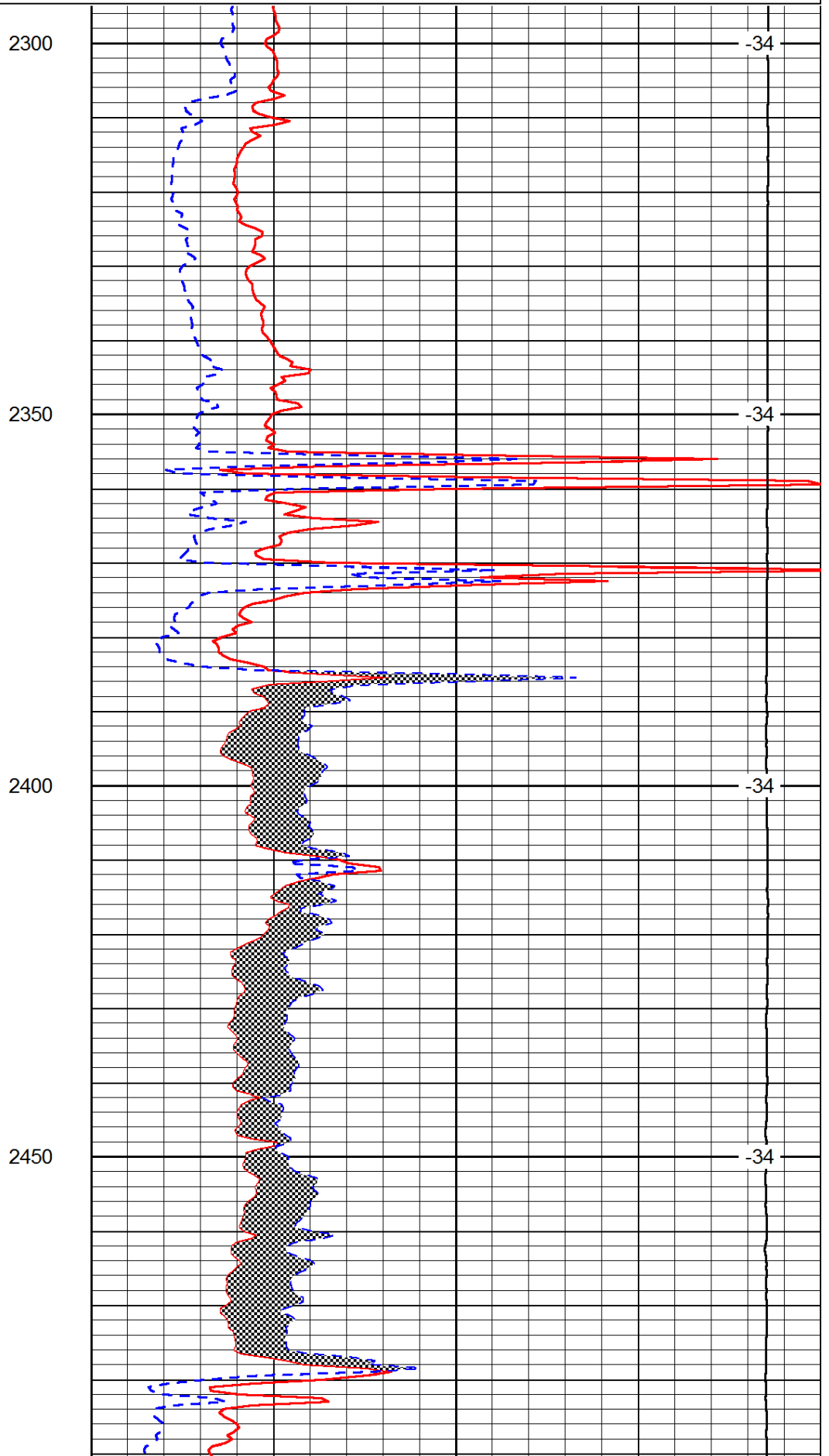
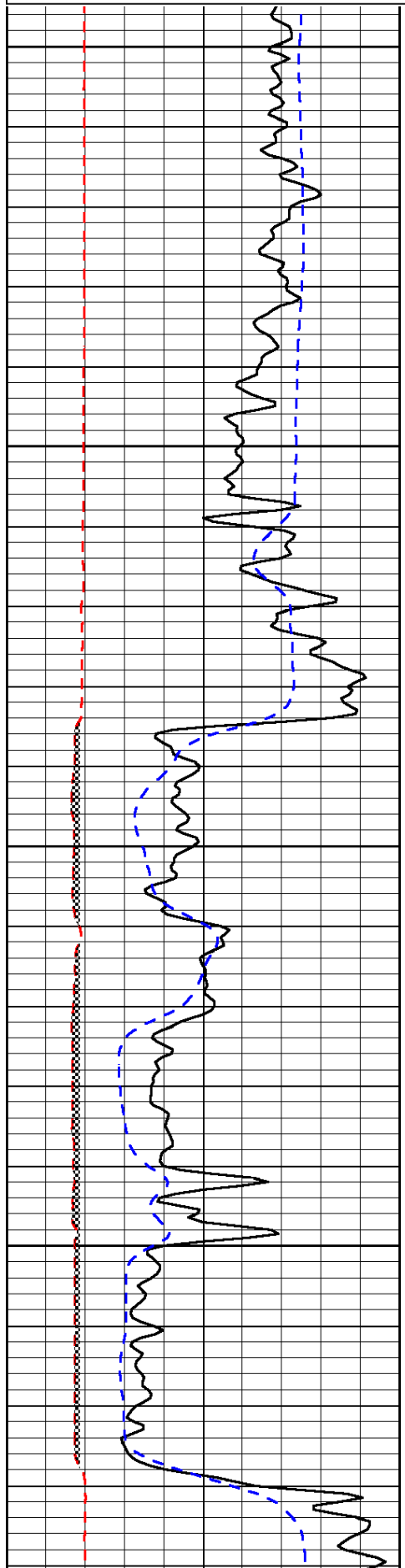
Arkansas City, 9 East from Highway 166 & Highway 77 Intersection to Grouse Creek Road,
2 North to 256 Road, 1/4 North, 1/2 Northwest, 1/8 North, 200 Yards West, 400 Yards North,
West Into

Database File: c:\warrior\data\w.d. short_brown # 13\wdshort_brown_#13hd.db
Dataset Pathname: dil/wdstck
Presentation Format: micro
Dataset Creation: Sat Aug 23 22:24:42 2014
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray	150
6	Micro Log Caliper (GAPI)	16
-200	SP (mV)	0

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
15000	Line Weight	0

LSPD



2300

-34

2350

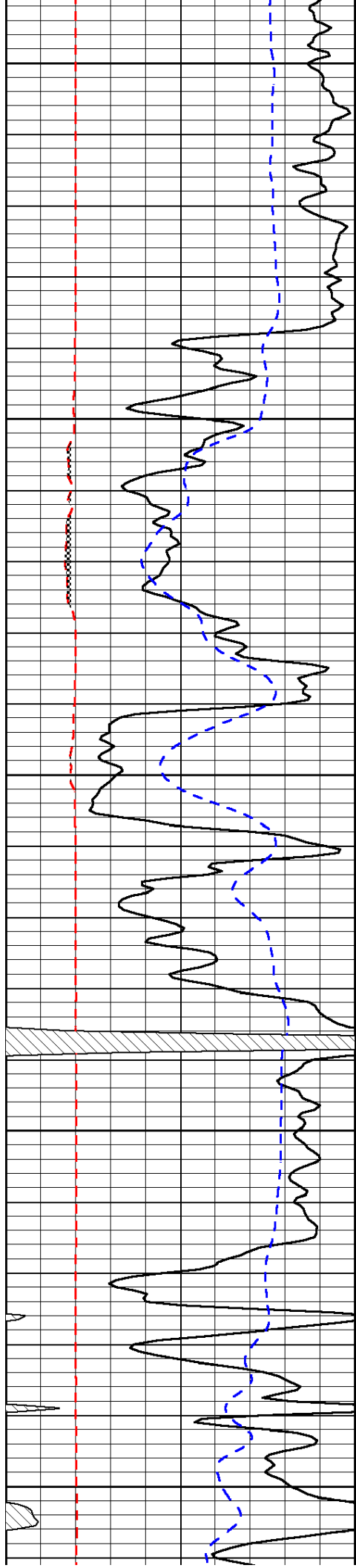
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2400

-34

2450

-34



2500

2550

2600

2650

2700

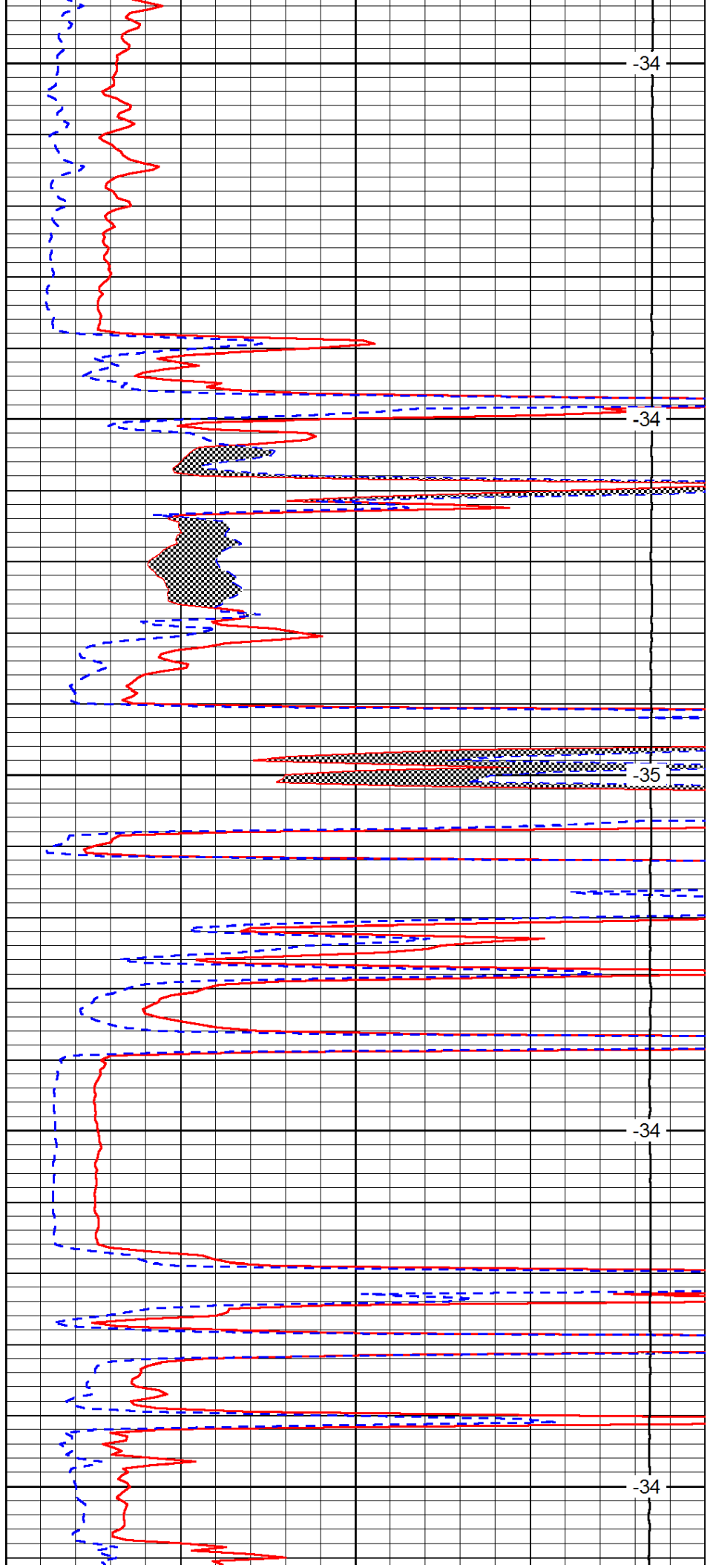
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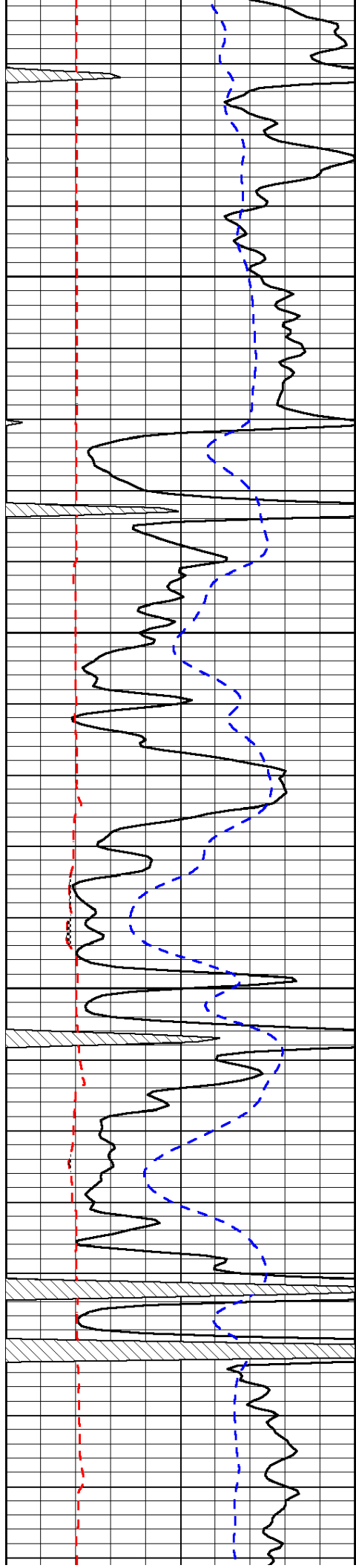
-34

-35

-34

-34





2750

-34

2800

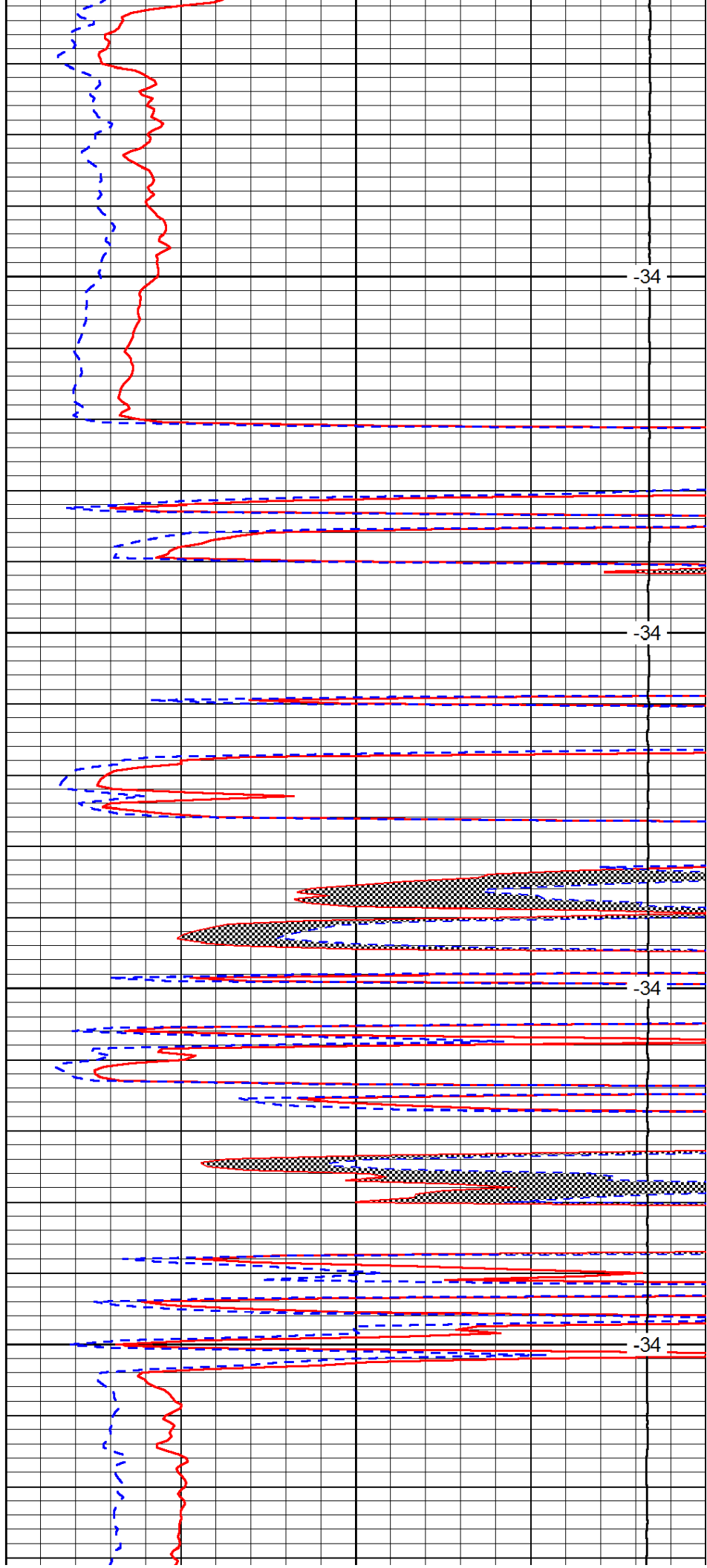
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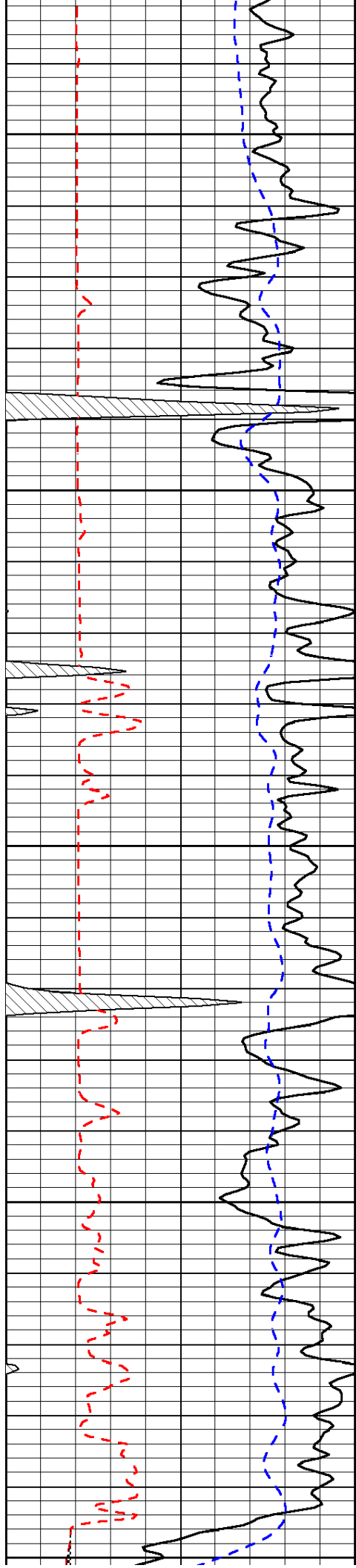
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-34

2900

-34





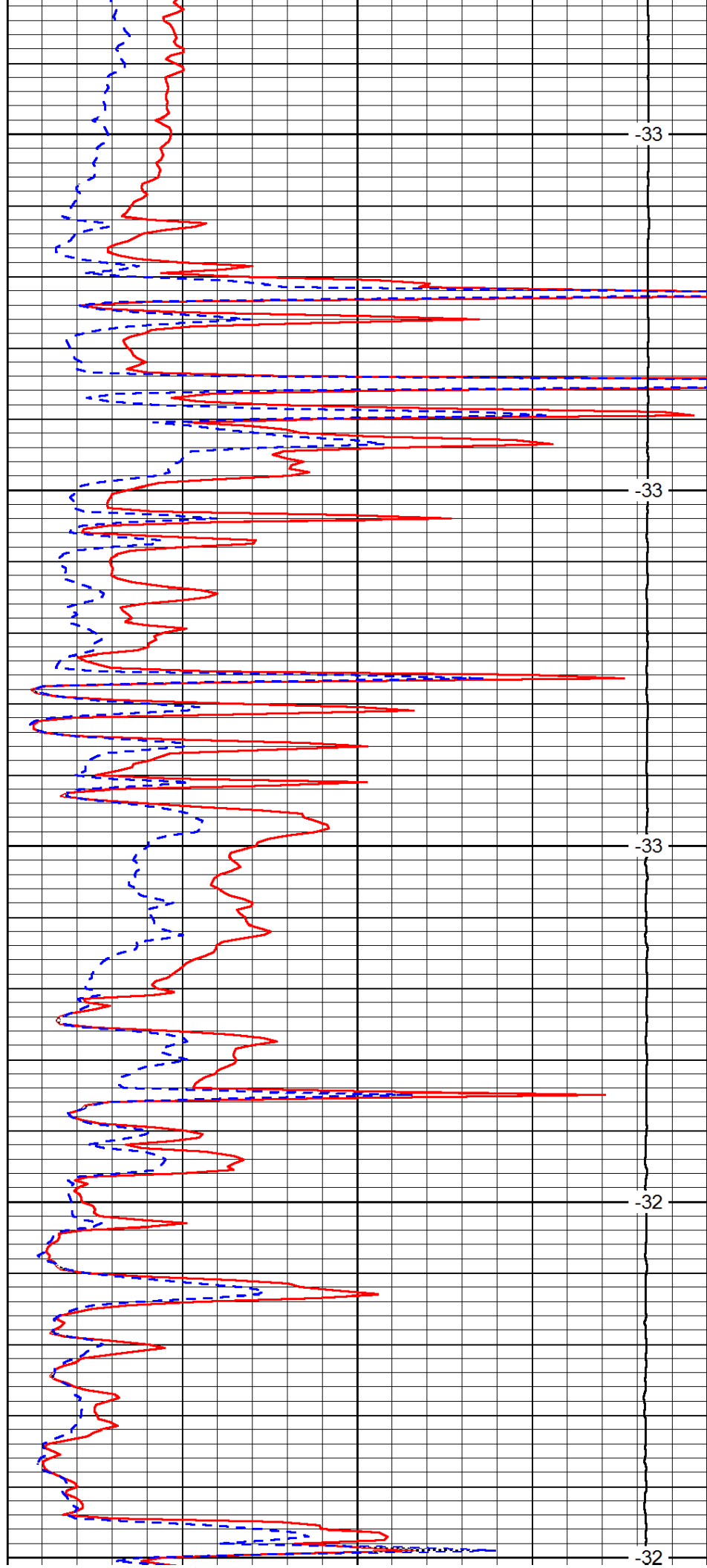
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3000

3050

3100

3150



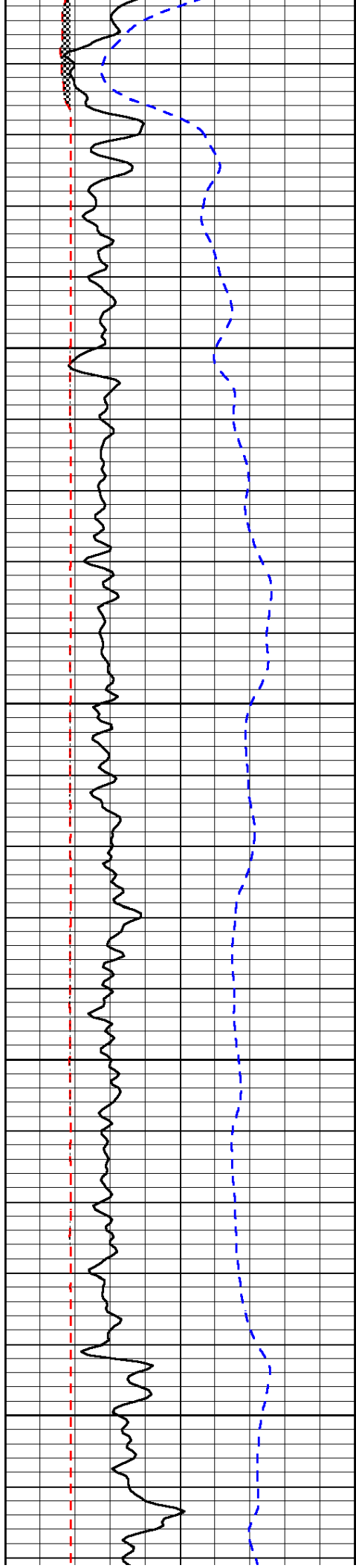
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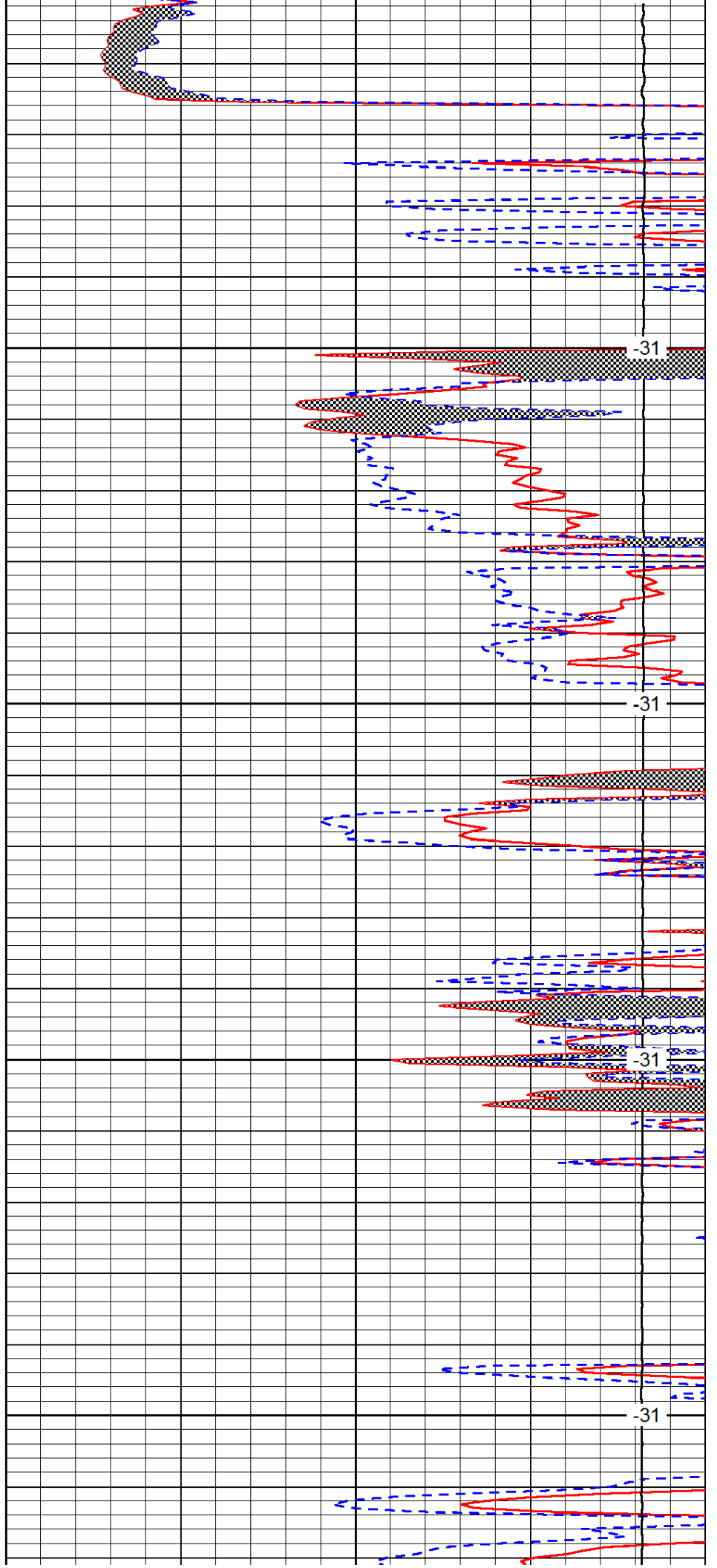


3200

3250

3300

3350

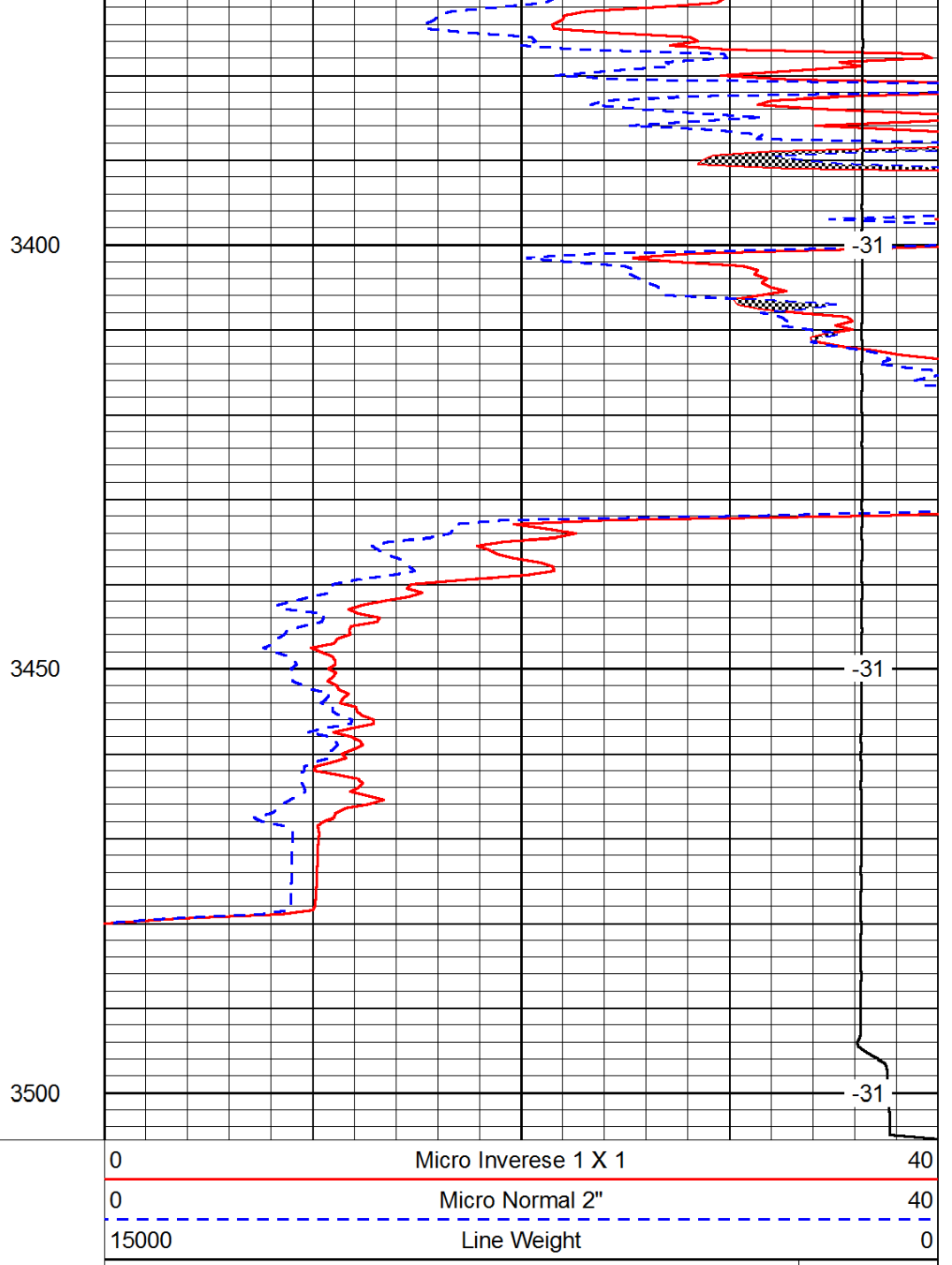
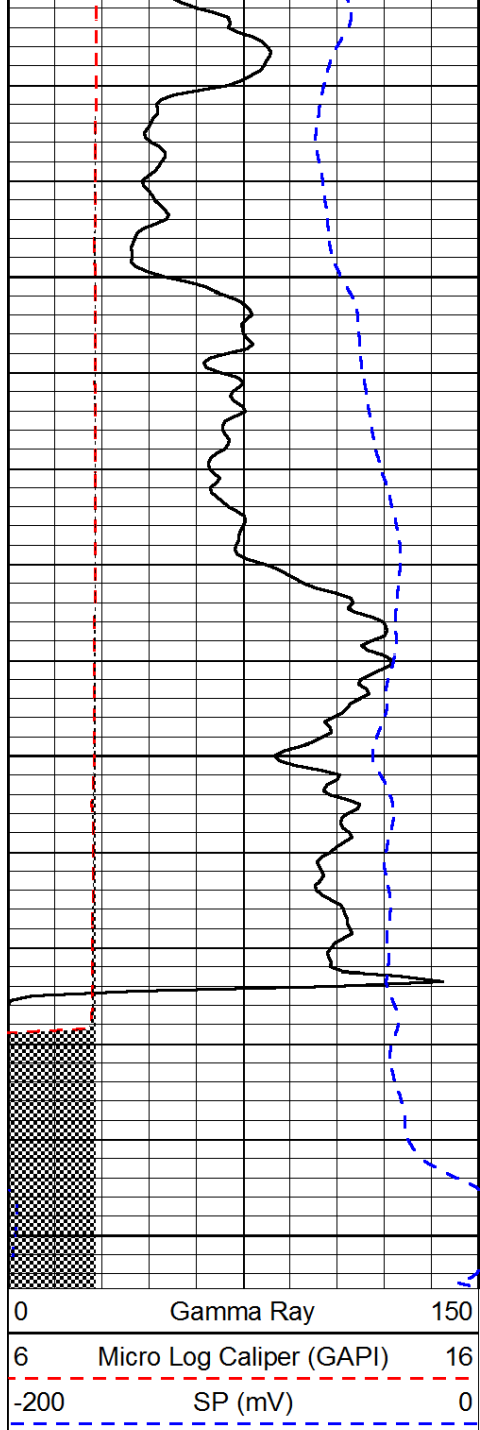


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LSPD